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(56) Documents Cited

GB 2328743 A EP 0625700 A1 US 4268413 A

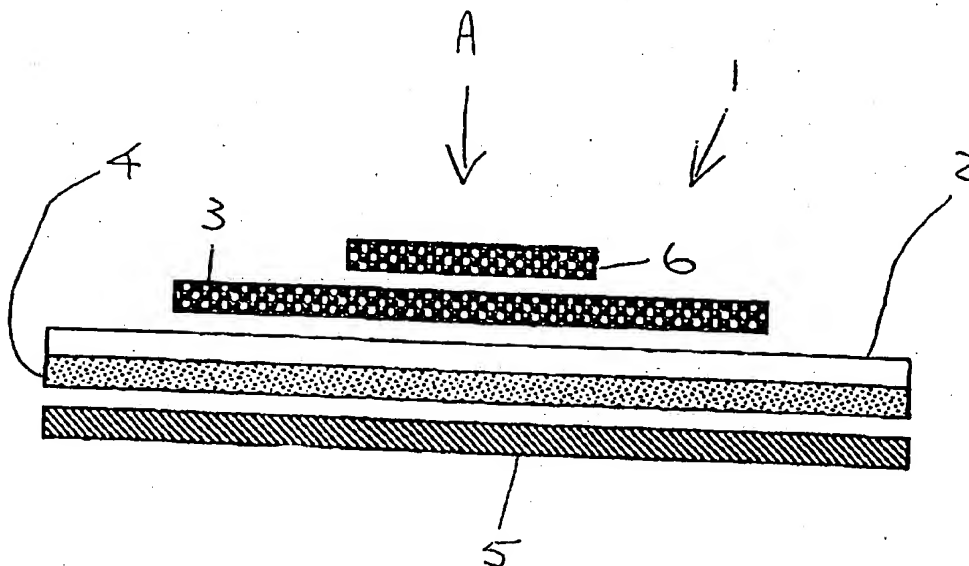
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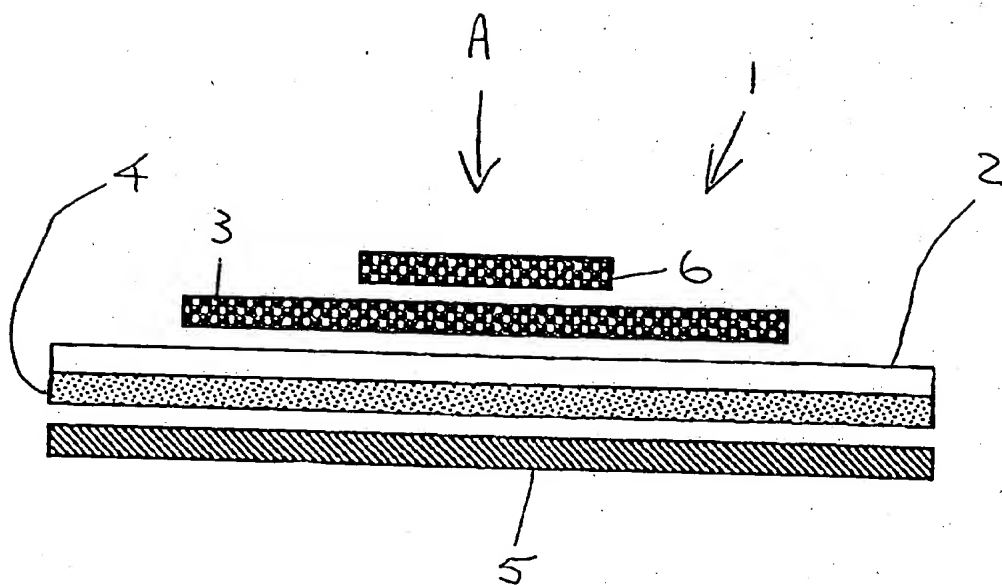
Temperature activatable indicia reveal cover

(57) The cover (1) comprises a clear substrate (2) which is coated on a surface thereof with a thermochromic substance (3) and on an opposite surface thereof with an adhesive (4), the adhesive being covered by a release sheet (5). The thermochromic substance may carry an additional thermochromic layer (6) which may be of a different colour. In use the release sheet (5) is removed and the cover (1) is attached by means of the adhesive (4) to a surface having a message thereon whereby the substrate (2) covers the message. The thermochromic substance (3), in a normal state, is opaque and therefore obscures the message. However, if the thermochromic substance (3) is heated, for example by rubbing with a finger causing friction and raising the temperature of the thermochromic substance (3), the substance (3) becomes clear and the message will be visible.



GB 2 348 703 A

1/1



TEMPERATURE ACTIVATABLE INDICIA REVEAL COVER

This invention relates to a temperature activatable indicia reveal cover.

5 It is known to provide to provide a graphic carrier having a thermochromic layer which obscures indicia on the carrier unless the thermochromic substance is heated such as to cause the thermochromic substance to become clear. Generally, such carriers are prepared by printing many units
10 on a sheet, printing a thermochromic layer over the units and then cutting the sheet into separate carriers each containing one of the units.

A disadvantage of this method of manufacture is that it requires relatively large volumes to provide an economic unit cost to the end user and the
15 method requires skilled and specialised knowledge of the art to produce a commercially acceptable product.

According to the present invention, there is provided a temperature activatable indicia reveal cover comprising a see-through substrate carrying
20 a thermochromic substance and an adhesive whereby the substrate is attachable to a surface by the adhesive and the surface is obscured from view by the substance, the substance being such as to pass visible light when heated to a pre-determined temperature so that the indicia carried on the surface is viewable through the combined substrate and substance.
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Following is a description, by way of example only and with reference to the accompanying drawing, which is a diagrammatic representation, of one method of carrying the invention into effect.

30 Referring to the drawing, there is shown cover 1 comprising a substrate 2 comprising a clear polymer film such as PVC, polyester or acetate. The

substrate 2 is coated on a surface thereof with a thermochromic substance 3 of such characteristic that the thermochromic substance 3 does not pass visible light until heated to, or beyond, a predetermined temperature, when the thermochromic substance 3 becomes clear. The substrate 2 is also provided, on a surface thereof opposite the surface carrying the thermochromic substance 3, with a pressure sensitive or heat set adhesive 4. The adhesive 4 is covered by a cover sheet 5 of siliconised or glassine paper.

- 10 The arrangement is such, that the cover sheet 5 is removed to expose the pressure sensitive adhesive 4 and the substrate 2 is applied to a surface (not shown) having a message printed thereon whereby the substrate 2 covers the message. Since the thermochromic substance 3, in a normal state, is opaque, the message of the surface is obscured by the thermochromic substance 3. However, if the substrate 2 is heated, for example by rubbing with the hands causing friction and raising the temperature of the thermochromic substance 3 beyond the temperature at which the thermochromic substance 3 becomes clear, the message on the surface below the substrate 2 will be visible when viewed in the direction of the arrow A.

Preferably, the substrate 2 comprises a web and the thermochromic substance 3 is also a web of corresponding width. The substrate web may have the pressure sensitive adhesive 4 coated on a surface thereof reverse to the surface carrying the thermochromic substance 3 and the pressure sensitive adhesive 4 may be formed into discrete areas. The cover sheet 5 may also be in the form of a web. The combined layers 2, 3, 4 and 5 provide a laminate which may be further processed using dye and kiss cutting tools to punch out different shapes.

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The thermochromic layer 3 may carry an additional thermochromic layer 6 which may be of a different colour. For example, the thermochromic layer 3 may be black and the additional thermochromic layer 6 may be in the form a red textual message stating "rub here".

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It will be appreciated that a temperature activatable indicia reveal cover in accordance with the present invention can be manufactured more economically than hitherto because there is no requirement for the manufacture to make endless variations of text or symbolage under the thermochromic layers since this is decided by the end user and, furthermore, the covers comprise single units of a manageable area providing the user with a facility to cover written letters which it is desired to obscure from a casual observer.

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CLAIMS

1. A temperature activatable indicia reveal cover comprising a see-through substrate carrying a thermochromic substance and an adhesive whereby the substrate is attachable to a surface by the adhesive and the surface is obscured from view by the substance, the substance being such as to pass visible light when heated to a predetermined temperature so that the indicia carried on the surface is viewable through the combined substrate and substance.
2. A cover as claimed in claim 1 wherein there is provided a release sheet in peelable contact with the adhesive.
3. A cover as claimed in claim 1 or claim 2 wherein there is provided a second thermochromic substance.
4. A temperature activatable indicia reveal cover substantially as hereinbefore describe and as illustrated in the accompanying drawings.



Application No: GB 9907809.9
Claims searched: 1-4

Examiner: Roger Binding
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Patents Act 1977 **Search Report under Section 17**

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): G1D (DH31A, DH31X).

Int Cl (Ed.7): G01K 11/12, 11/14, 11/16, 11/18

Other: Online WPI EPODOC JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
Y	GB 2328743 A (AMG INNOVATIONS)	1, 2
Y	EP 0625700 A1 (TRIGON INDUSTRIES)	1, 2
Y	US 4268413 A (DABISCH), note especially column 3, lines 39 to 50, column 5, lines 42 to 51, and column 6, lines 53 to 63.	1, 2

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.